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THIS IS UNEVALUATED INFORMATION FOR THE RESEARCH USE OF TRAINED INTELLIGENCE ANALYSTS

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RECENTLY PUBLISHED RESEARCH OF THE GOR'KIY MEDICAL INSTITUTE, USSR

Milloxan Diabotes. Dependence of the Course of Diabetes in hats on the Mathod of Administration of Allowan and the Blood and Pamereatic Levels," Ya. A. Lazaris, T. G. Ugodnikova, Gor'kiy Med Inst

"Byull Ekaptl Biol i Med" Vol 22, No 4, 1946. PP 49-53

Injection of 100 mg/kg of alloran (I) into the tail vein of white rate weighing between 140 and 200 g invariably produced diabetes. Subcutaneous administration of 200-300 mg/kg of I resulted in diabetes in most cases. Second injection produced diabetes in animals refractory to the first dose. The feeding of as much as 2,000 mg/kg of I by stomech tube had no effect on the animals; this indicates a rapid destruction of I in the gestrointestinal tracts. Symptoms resulting from I were triphasic. Animals showed initial hyperglycemia followed by hypoglycemia in 7 hours and final hyperglycemia within 24 hours. When I was given intravenously, it could be detected in the blood and pancress within 1 minute, and disappeared very rapidly thereafter. I was destroyed quickly when it was added to whole blood, serum, or plasma at 37°.

"Alloxan Diabetes. Causes of Initial Variations of Blood Sugar in White Mice after Administration of Alloxan," Ya. A. Lezaris, T. G. Ugodnikova,

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"Byull Eksptl Biol i Hea" Vol 22, No 5, 1946, pp 13-16

White rats were adrenalectomized under ether after a fast. Blood sugar was determined in a number of them at regular intervals. Others were injected with alloxan and their blood segars were determined. Rats which had lost only one adrenal gland showed a hyperglycemia which increased considerably after alloxan. In animals losing both adrenal glands the blood sugar was essentially normal, but injection of alloxan led to a severe and often fotal hypoglycemia. Thus it was confirmed that the initial hyperglycomia after injection of allows is the result of interaction of the letter with the adrenal glands. In a second experiment, rate injected with allowan were later decapitated at various intervals and their blood injected in white mice. The blood sugar of the mice was substantially the same as in controls when the rate were killed during the hyperglycemic phase of alloxan poisoning; however, the blood of rate killed during the height of the hypoglycenic phase caused a pro-nounced hypoglycenia in the mice. This result indicates that during the hypoglycemic phase of alloxan disbotes there is a large smount of insulin in the blood which causes the catastrophic fall of the blood sugar.

"Alloxan Diabetes. Influence of Fat-rich food on the Course of Diabetes in White Mats," Ya. A. Lazaria, E. R. Brzeshinskaya, Gor'kiy Med Inst

"Byull Eksptl Biol i Med" Vol 22, No 6, 1946, pp 36-9

White rate in which diabetes was induced by alloxan were kept on a normal diet for 20 days and then on a diet containing 70% hog tallow and 30% normal food. Immediately after initiation of the latter diet, diuresis decreased sharply and glucose was essentially absent from the urine. Return to normal diet did not see a return of glucose excretion. In another series, after diabetes was induced, the animals were fed a diat of hog tallow, lean beef, vitamins, and minerals. The fat level was increased slowly up to 70%. Diuresis was small and glucose level in the urine was very low. Return to normal diet led to increased diuresis and glucose excretion. With the high-fet, low-protein diet, betone bodies were absent from the urine; with a high protein intake they were always present.

"Determination of Perceidase Activity in Blood," P. V. Simekov, Gor'kiy Med Inst

"Biokhimiya" Vol 10, 1945, FP 360-3

From O.OlN indigo carmine a O.OOlN solution is prepared just before use. The titer is determined by

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acidifying 0.001M indiao carmine solution with 2N BaBOh, and titrating with 0.001M EMnOh until the volor changes from graen to a pure yellow. The oxidation is considered at an end as seen as the blue has changed to a rose-yellow color. The time necessary for the exidation of the indigo carmine is a measure of the peroxidase activity. The method is accurate to 5%. Since the peroxidase action of the blood is rolated to the ascunt of hemoglobin, and the latter veries with different people, for purposes of comparison, the peroxidase activity is divided by the percentage of hemoglobin.

"Electroreduction of the Peptide Group in Cyclic and Open-chain Compounds. Reduction of Certain Amides and Substituted Amides," N. I. Gavrilov, A. V. Koperina, M. M. Klyuchareva, Gor'kiy Med Inat

"Bull Soc Chim" Vol 12, 1945, pp 773-9.

Behavior of smids in electroreduction is studied to determined whether cyclic and open-chain peptides can be distinguished in proteins. The electrodes are pure Pb, the anode solution is 20% \$250, the cathode solution contains H₂O, BtOH, H₂SO_h, and 0.01 M amide. Current density is 0.187 emp/sq cm at 40°. Results show that aromatic amides are reduced only when Ph is in direct combination with the C of CO. Piperswine has the same effect as Ph. Fatty acid amides are not reduced unless Me or Ph replaces the H in HCCMH₂ or AcNH₂. The reduction of hippuric acid is an exception. The greater case of reduction of aromatic compounds is probably due to their greater case of hydrolysis and the solubility of the compounds produced.

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